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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,965	08/07/2003	Troy W. Livingston	79237 (1273)	1234
22242	7590	10/06/2004	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			SONG, HOON K	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/635,965	Applicant(s) LIVINGSTON, TROY W.	
	Examiner Hoon Song	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☒ Claim(s) 34-36 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/8/03</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____. |
|---|---|

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-19, 21-23 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Caine (US 4274006).

Regarding claim 17, Caine teaches a method of making a marker for use with X-ray sensitive film for disposition between an X-ray source and the X-ray film to provide identifying indicia on the X-ray when the film is subjected to X-ray energy from the X-ray source, the method comprising:

providing a support (14);

forming pockets (figure 4) in the support the shape of indicia; and

filling the pockets with an indicia (26) forming mixture of material having X-ray absorbing characteristics to absorb X-ray energy to form substantially clear identifying indicia on the X-ray film, the clear indicia being readily visible when the film has been exposed to the X-rays (column 3 line 10-36).

Regarding claim 18, Caine teaches providing an extrudable mixture of material for the indicia containing a tungsten ingredient and filling the pockets therewith; and allowing the extrudable mixture to solidify in the pockets (column 3 line 20-25).

Regarding claim 19, Caine teaches solidifying the mixture in situ in pockets (column 3 line 25).

Regarding claim 21, Caine teaches forcing the indicia forming mixture into the pockets with a squeegee and removing any excess material from the surface of the block (column 4 line 14).

Regarding claim 22, Caine teaches engraving the pockets in a surface of the support (figure 4).

Regarding claim 23, Caine teaches engraving reversely formed, alpha/numeric indicia into a surface of the support (figure 1 and 4).

Regarding claim 25, Caine teaches providing a block of plastic as engraving the pockets in one face the support and plastic block (figure 4).

Regarding claim 26, Caine teaches after filling the pockets removing any excess mixture from the face of the block (column 4 line 14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9, 12-15, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine in view of Kobayashi et al. (US 5005075).

Regarding claim 1, Caine teaches a marker for use with X-ray sensitive film for disposition between an X-ray source and the X-ray sensitive film to provide identifying

indicia on the X-ray sensitive film when the film is exposed to X-ray energy from the X-ray source, the marker comprising:

a support (14) of material that does not substantially absorb X-ray energy so that the support is not visible on the X-ray sensitive film (column 2 line 66);

indicia forming pockets (30, 32) in the support forming the shapes of the identifying indicia (26); and

a mixture of material in the pockets forming the indicia comprising a predetermined percentage of a material to provide X-ray absorbing characteristics to absorb X-ray energy to form substantially transparent identifying indicia which are readily visible when the film has been exposed to the X-rays (column 3 line 28).

However Caine fails to teach that the material is tungsten.

Kobayashi teaches tungsten as x-ray absorbing material (column 11 line 66).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the lead of Caine with the Tungsten of Kobayashi, since the Tungsten is less toxic than lead.

Regarding claim 2, Caine teaches a plastic block (14) having the indicia forming pockets engraved on one side thereof (column 2 line 66).

Regarding claim 3, Caine teaches the mixture of material forming the indicia comprises a screen printing ink mixed with the material to provide a flowable material (column 4 line 54).

Regarding claim 4, Kobayashi teaches the tungsten material is tungsten oxide (column 12 line 1).

Regarding claim 5, Caine teaches the screen printing ink is a white ink to improve contrast of the indicia (column 4 line 49-65).

Regarding claim 6, Caine teaches the mixture of material in the pockets extending to adjacent the side of the block (figure 4).

Regarding claim 7, Caine teaches the pockets are reversely cut into a face of the support (figure 4).

Regarding claim 9, Caine teaches the pockets are cut to appear in alpha/numeric characters when viewed from the facing side of the support (figure 1).

Regarding claim 12, Caine teaches a textured frosty surface on the block (column 4 line 14).

Regarding claim 13, Caine teaches a marker for use with X-ray sensitive film for disposition between an X-ray source and the X-ray sensitive film to provide identifying indicia on the X-ray sensitive film when the film is exposed to X-ray energy from the X-ray source, the marker comprising:

- a support (14) of material that does not absorb X-ray energy so as not to be visible on the X-ray sensitive film;

- indicia forming pockets the support reversely engraved to reversely readable identifying indicia (figure 4); and

- a mixture of material in the pockets comprising a predetermined percentage of a material to provide X-ray absorbing characteristics to absorb X-ray energy to form normal readable, substantially transparent identifying indicia corresponding to the material on the film which are readily visible when the film has been exposed to the X-

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rays with the reversely engraved letters positioned to be read from the rear side of the exposed X-ray film.

However Caine fails to teach that the material is tungsten.

Kobayashi teaches tungsten as x-ray absorbing material (column 11 line 66).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the lead of Caine with the Tungsten of Kobayashi, since the Tungsten is less toxic than lead.

Regarding claim 14, Caine as modified by Kobayashi teach the mixture of material has a specific gravity of at least eleven (tungsten).

Regarding claim 15, Caine as modified by Kobayashi would teach the mixture has an absorption equivalency of at least 90% of that of lead (tungsten).

Regarding claim 20, Caine teaches providing an indicia mixture comprising screen printing ink and a ingredient; and wherein the filling of the pockets comprises forcing the mixture of ink and ingredient into the pockets.

However Caine fails to teach that the ingredient is tungsten.

Kobayashi teaches tungsten as x-ray absorbing material (column 11 line 66).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the lead of Caine with the Tungsten of Kobayashi, since the Tungsten is less toxic than lead.

Regarding claim 24, Caine fails to teach the engraving of the pockets comprises: using a CNC machine to engrave letters and numbers thereby forming the pockets in the plastic block.

CNC machine is known engraving machine.

It would have been obvious to one of ordinary skill in the art at the time of the invention to engrave pocket of Caine with the known CNC machine, since the machine would provide clear and detailed pockets for marker.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine as modified by Kobayashi as applied to claim 1 above, and further in view of Livingston (US 5394456).

Regarding claims 8 and 10, Caine teaches the support comprises: a block of transparent plastic (14) and a hole (18) extending through the block from one face to the opposite face of the block.

However Caine fails to teach at least one magnet in a recessed pocket in the face of the block.

Livingston teaches a Marker with magnet (42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the marker of Caine as modified by Kobayashi with the magnet as taught by Livingston, since the magnet of Livingston would secure the marker in a stationary position.

Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine as modified by Kobayashi as applied to claim 1 above, and further in view of Ray (US 5592527).

Regarding claims 11 and 16, Caine as modified by Kobayashi fails to teach the marker is for use in a flip marker system, the marker comprising: a flip marker body

having an end to snap into a holder of the flip marker system; and the support and indicia mixture in the support being mounted in a central cavity in the flip marker body.

Ray teaches a marker with flip (figure 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the marker of Caine as modified by Kobayashi with the flip marker as taught by Ray, since the flip marker of Ray would provide convenience of positioning of the marker system.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caine in view of Livingston (US 5394456).

Regarding claim 27, Caine fails to teach providing a metal layer adjacent the indicia to filter high X-ray energy to provide improved clarity for the identifying indicia.

Caine Livingston teaches providing a metal layer adjacent the indicia.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the marker of Caine with the metal layer as taught by Livingston, since the layer of Livingston would provide improved clarity for the identifying indicia.

Claims 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston in view of Furnumori et al. (US 6356621B1).

Regarding claim 28, Livingston teaches a marker for use with X-ray film to provide identifying indicia on the film comprising:

indicia (26) formed of a predetermined percentage of a material to provide X-ray absorbing characteristics to absorb X-ray energy to form the identifying indicia; and

a metal layer (24) adjacent the indicia to filter high X-ray energy about the indicia to provide improved clarity to the identifying indicia on the film.

However Livingston fails to teach that the material is tungsten.

Furnumori teaches tungsten as x-ray absorbing material (column 2 line 40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the steel of Livingston with the Tungsten of Furnumori, since the Tungsten would provide clearer image than the steel.

Regarding claim 29, Livingston teaches a metal backing of stainless steel.

Regarding claim 30, Furnumori teaches the marker for mammography has a metal layer of about 0.004 to 0.012 inch thickness (column 2 line 42).

Regarding claim 31, Furnumori teaches the tungsten material has a thickness of about 0.020 inch (column 2 line 42).

Regarding claim 32, Livingston teaches the marker is used for general X-rays and has a metal layer of about 1/8 inch in thickness.

Regarding claim 33, Furnumori teaches the tungsten material is about 0.020 inch in thickness (column 2 line 42).

Allowable Subject Matter

Claims 34-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 34, the prior art fails to teach the metal layer being a metal strip; a plastic block having pockets with the indicia in one face of the block; and the metal strip attached to an opposite face of the plastic block as claimed in dependent claim 34.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HKS

8/30/04
HKS


EDWARD GLICK
SUPERVISORY PATENT EXAMINER